PATENT SPECIFICATION

341,745

Application Date: Feb. 12, 1930. No. 4681/30.

Complete Left: Nov. 12, 1930.

Complete Accepted: Jan. 22, 1931.

PROVISIONAL SPECIFICATION.

Extensible Side Supports for Drawers and like Slidable Structures.

We, THE AUTOSET CLAMP COMPANY LIMITED, a registered British Company, and JOSEPH GEORGE SKINNER, a British Subject, both of 19—21, Charlotte Street, Birmingham, do hereby declare the nature of this invention to be as follows:—

The invention provides the hereinafter described extensible side supports for drawers and like slidable structures.

Such side supports are well known as fitted to drawers of filing and stationery cabinets to enable the drawer to slide in and out in an anti-frictional manner and to be adequately supported when fully opened, and also to be easily removable and replaceable.

The invention provides a side support of the kind, comprising two bars, a bearer bar to be rigidly attached to the side of the drawer housing, and a drawer bar to be rigidly attached to the side of the drawer, and the feature of the invention is that the anti-frictional roller devices operative between the two bars are applied only to the forward end of the bearer bar and to the rear end of the drawer bar, so that the lengths of the bearer bar and the drawer bar may be changed at will without interfering in any way with the anti-frictional roller devices operative between the two bars. In other words, side supports can be stocked with the bearer bar and the drawer bar of fullest length to suit the maximum length of drawer in ordinary use, and can be shortened to suit a drawer of less length by cutting the surplus off each of the bars from their ends remote from where the roller devices are applied. Therefore the invention enables the side supports to be adaptable for drawers of various lengths by simply cutting off the surplus from the bars.

Each bar is shaped up from strip steel, and is of a cross-sectional shape similar to a square hook, providing a deep vertical web, a short horizontal web, and a short vertical flange extending the full length of the bar, the flange corresponding to the point end of the hook shape, and the deep vertical web corresponding to the shank. In the bearer bar the deep vertical web is attached to the side of the drawer housing so that the square hook formation is inverted, and at the forward end of this bar low down is pivoted an anti-friction roller revoluble upon a strong pivoting centre projecting inwardly from a plate-like bracket strongly rivetted to the forward end of the vertical web, the axis of the roller being horizontal. The whole of this bearer bar, except for wood screw holes through its deep vertical web, is left plain so that it can be shortened by cutting a piece off from its end remote from where the roller device is applied aforesaid. The drawer bar is of similar cross-sectional shape to the bearer bar, and two anti-frictional rollers are applied to its rear end in vertical line, the hook shaping being at the lower horizontal edge of this bar. The axes of the rollers are horizontal. The deep vertical web is rigidly attached to the side of the drawer. The lower roller is pivoted to the deep vertical web of the bar, and the upper roller to a plate-like bracket rivetted to the deep web and extending upwardly, while also hinged to this plate-like bracket, forward of the rollers, is the one end of a pawl-like stop to fall by its own weight and to be lifted by hand, and used for the purpose of preventing the entire withdrawal of the drawer from its supports. This drawer bar is also plain in its length except at the rear end of it where the rollers and the pawl-like stop are applied, so that it can be shortened by cutting a piece off at its end remote from where the rollers are fitted.

When the drawer bar is put into engagement with the bearer bar the short horizontal web of the bearer bar travels between the two rollers applied to the rear end of the drawer bar, and the short horizontal web of the drawer bar rests upon the periphery of the roller at the forward end of the bearer bar, while the tooth of the pawl-like stop rests upon the top of the short horizontal web of the bearer bar.

The weight on the drawer bar when the drawer is closed is borne by the top roller at the rear end of the drawer bar and the

roller at the forward end of the bearer bar, and when the drawer is fully open the weight of the drawer is borne by the lower roller at the rear end of the drawer bar and the roller at the forward end of the bearer bar.

In the short horizontal web of the bearer bar at its forward end is provided a gap for the tooth of the pawl-like stop to drop into when the drawer is fully opened, so that the latter is safe against being pulled right out of its bearer bar supports, but if the pawl-like stop be lifted by hand the drawer can be entirely removed from its bearer supports, and the replaced when desired. The pawl-like stop falls into the gap by its weight and lifts out automatically as the drawer closes.

The invention is not confined to the particular cross-section of bars, or to the particular arrangement of rollers, so long as the bearer bar and the drawer bar can be shortened by cutting off surplus from their ends remote from where the roller devices are applied to adapt the side supports to different lengths of drawers or the like.

Dated this 11th day of February, 1930.

GEORGE T. FUERY,
Chartered Patent Agent,
Newhall Chambers,
8, Newhall St., Birmingham.

COMPLETE SPECIFICATION.

Extensible Side Supports for Drawers and like Slidable Structures.

We, THE AUTOSET CLAMP COMPANY LIMITED, a registered British Company, and JOSEPH GEORGE SKINNER, a British Subject, both of 19—21, Charlotte Street, Birmingham, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

Extensible metal side supports are well known as fitted to drawers of filing and stationery cabinets and the like to enable a drawer to slide in and out in an anti-frictional manner and to be adequately supported both when closed and fully opened and also to be removable and replaceable.

The invention provides an extensible side support for the purpose aforesaid comprising two pieces only, the one a metal bearer bar to be rigidly attached to the side of the drawer housing, and the other a metal drawer bar to be rigidly attached to the side of the drawer, and the feature of these two bars is that their anti-frictional roller devices are applied only to the forward end of the bearer bar and to the rear end of the drawer bar, so that the lengths of both bars may be changed at will by cutting pieces off from the ends of the bars remote from where the anti-frictional roller devices are applied. With this feature side supports can be stocked with the bearer bar and the drawer bar of fullest length to suit the maximum length of drawer in ordinary use, and said bars can be shortened quickly and easily to suit a drawer of less length by simply cutting off the surplus from the bars at the remote ends aforesaid.

It is usual in such extensible side supports to which the invention relates to shape up the bars from strip metal into somewhat channel cross-section, and this manufacture is maintained in carrying out the invention.

The forward end of the bearer bar low down has pivoted to it an anti-frictional roller revoluble upon a strong pivoting centre the axis of which is horizontal. The rear end of the drawer bar has fitted to it two anti-frictional rollers in vertical line, the axes of which are horizontal, and this end of the drawer bar also carries a hinged pawl to co-act with an opening in the bearer bar to prevent the entire withdrawal of the drawer from its supports.

When the drawer is closed the weight of it is borne by the top roller at the rear end of the drawer bar and the roller at the front end of the bearer bar, and when the drawer is fully open the weight of it is borne by the lower roller at the rear end of the drawer bar and the roller at the forward end of the bearer bar.

The invention is represented by the accompanying sheet of drawings.

Fig. 1 is an elevation of an assembled side support with the housing for the bearer bar removed and with the drawer partly pulled out.

Fig. 2 is a plan sectional elevation of Fig. 1.

Fig. 3 is a cross-section of Fig. 1 on the dotted lines A—B.

Fig. 4 is a cross-section of Fig. 1 on the dotted lines C—D.

Fig. 5 is an elevation of the drawer bar separately.

Fig. 6 is an elevation of the bearer bar separately.

Fig. 7 is a turned-over elevation of Fig. 6.

The bearer bar *a* is to be rigidly attached to the side of the drawer housing. The drawer bar *c* is to be rigidly attached to the side of the drawer. Each bar is shaped up from strip steel and is of a cross-sectional shape similar to a square hook providing a deep vertical web *d*, a short horizontal web *e* and a short vertical flange *f* extending the full length of the bar.

In the bearer bar *a* its deep vertical web *d* is attached to the side of the drawer housing so that the square hook formation is inverted. At the forward end of this bar low down is pivoted an anti-frictional roller *g* revoluble upon a strong pivoting centre *g2* projecting inwardly from an enlargement of the vertical web of this bar, the axis of the roller being horizontal. The whole of this bearer bar *a*, except for the wood screw holes *a2*, is left plain so that its length can be shortened by cutting a piece off from its end remote from where the roller *g* is applied.

The drawer bar *c* of similar cross-sectional shape to the bearer bar as before described has two anti-frictional rollers *h* and *i* applied to its rear end in substantially vertical line with each other and with horizontal axes. The deep vertical web *d* of this drawer bar is rigidly attached to the side of the drawer *x* by the wood screws *x2*. Both these two rollers are pivoted to the deep vertical web of this drawer bar which is increased in size where the rollers are applied. Hinged at *j2* to the drawer bar *c* at the anti-frictional roller end is a pawl-like stop *j* to fall by its own weight and to be lifted by hand and used for the purpose of preventing the entire withdrawal of the drawer from its supports. This drawer bar *c* is also entirely plain in its length, except at the rear end of it where the rollers *h* and *i* and the pawl-like stop *j* are applied, so that its length can be shortened by cutting a piece off at its end remote from where the rollers and pawl are fitted.

When the drawer bar *c* is put into engagement with the bearer bar *a* the short horizontal web of the bearer bar travels between the two rollers *h* and *i* and the short horizontal web of the drawer bar *a* rests upon the periphery of the roller *g* while the tooth *j3* of the pawl rests upon the top of the short horizontal web *e* of the bearer bar.

The weight on the drawer bar when the drawer is closed is borne by the top roller *h* at the rear end of the drawer bar and the roller *g* at the forward end of the bearer bar and when the drawer is fully opened or sufficiently open for a projecting leverage to operate the weight of the drawer is borne by the lower roller *i* at the rear end of the drawer bar and the roller *g* at the forward end of the bearer bar.

In the short horizontal web *e* of the bearer bar *a* is provided a gap *l* for the tooth *j3* of the pawl-like stop *j* to drop into when the drawer is fully opened so that said drawer is safe against being pulled right out of its bearer bar supports, but if the pawl-like stop *j* be lifted by hand the drawer can be entirely removed from its bearer supports and be replaced when desired.

The pawl-like stop *j* falls into the gap *l* by its own weight and lifts out automatically as the drawer closes.

It is to be understood that the drawer is supported by extensible side supports fixed oppositely on each side of it.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1). For drawers and like slidable structures, an extensible side support comprising two bars only, a bearer bar to be rigidly attached to the side of the drawer housing, and a drawer bar to be rigidly attached to the side of the drawer, with the distinctive feature that the anti-frictional roller devices operative between the two bars are applied only to the forward end of the bearer bar and to the rear end of the drawer bar, and that these bars remote from the anti-frictional roller devices are plain ones which may be shortened by cutting off surplus from the bars, substantially as described.

2). Extensible side supports in accordance with the preceding claim, and in which two anti-frictional rollers and a stop pawl are provided upon the rear end of the drawer bar, and one set-down anti-frictional roller upon the forward end of the bearer bar, all operative substantially as described.

3). An extensible side support for drawers and like slidable structures, constructed in accordance with the preceding claims, and arranged and adapted to operate in a manner substantially as described with reference to the drawings.

Dated this 11th day of November, 1930.

GEORGE T. FUERY,
Chartered Patent Agent,
Newhall Chambers,
8. Newhall Street, Birmingham.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1931.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1.

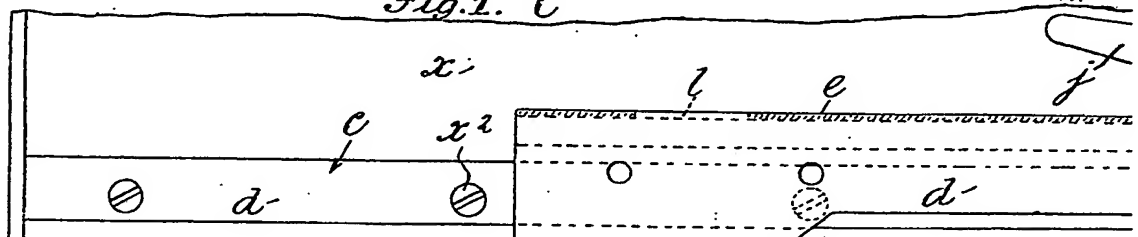


Fig. 2.

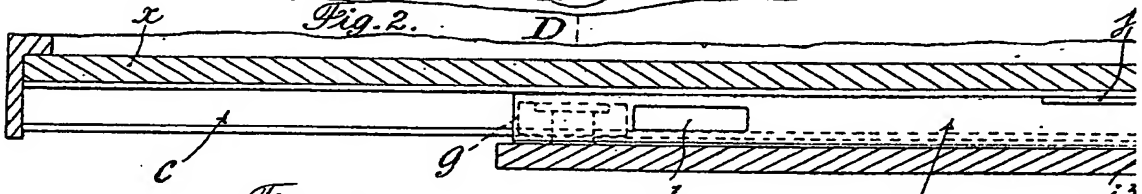


Fig. 3.

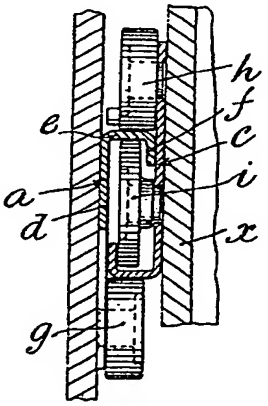


Fig. 7.

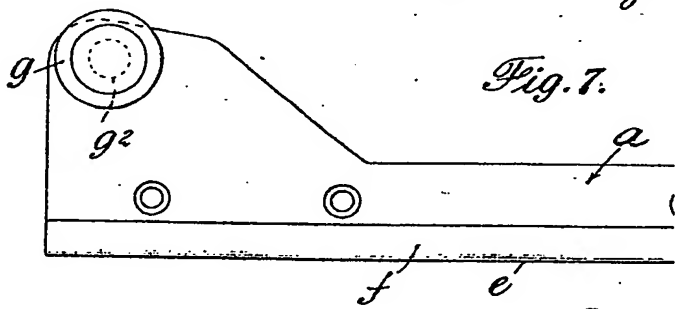


Fig. 5.

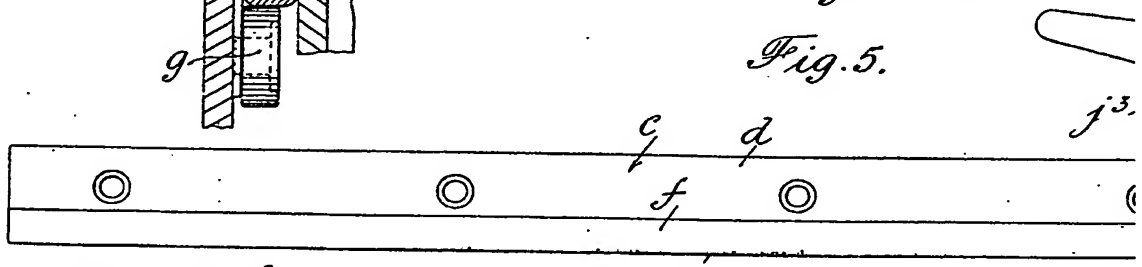
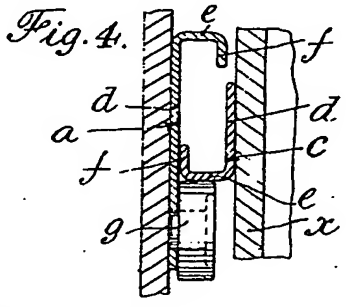
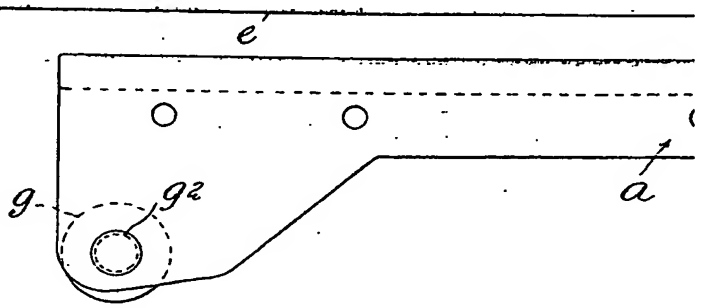


Fig. 4.





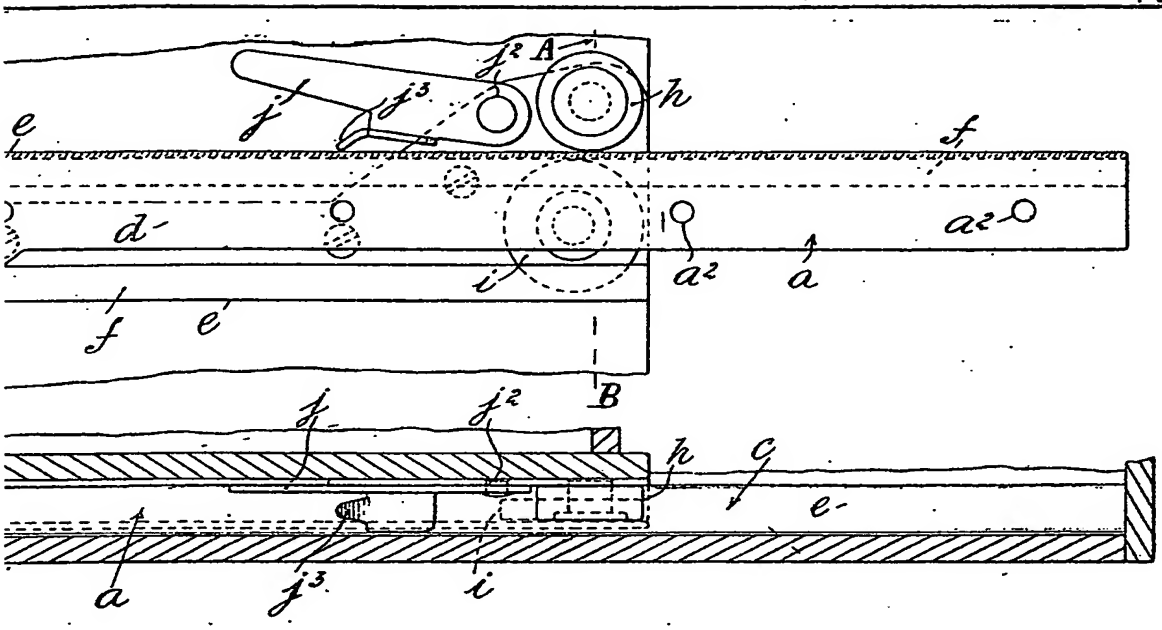
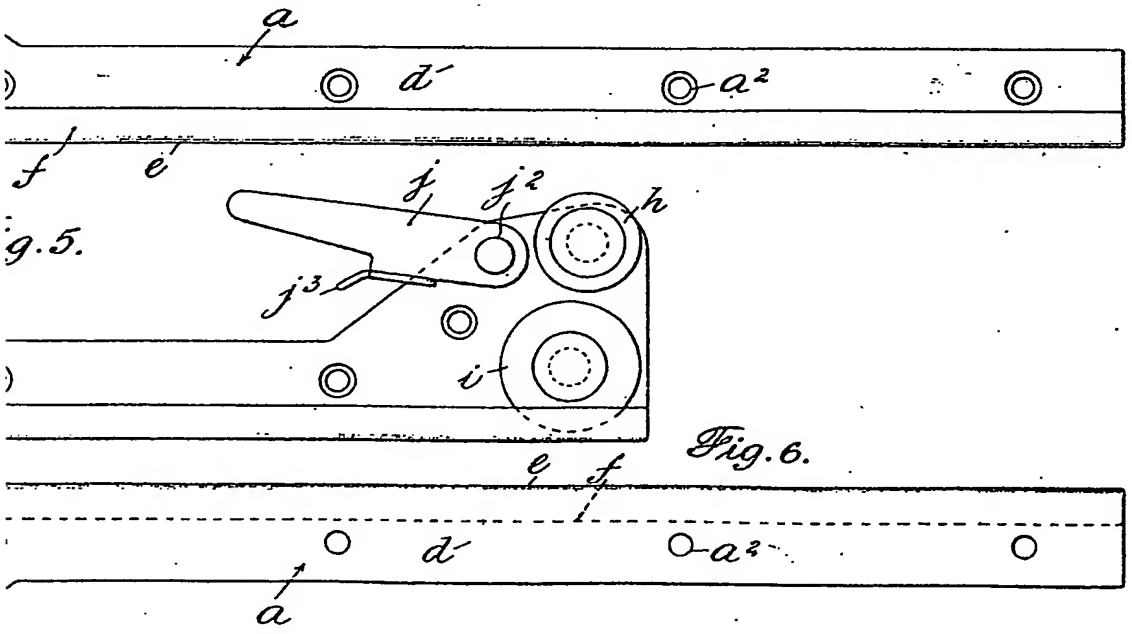


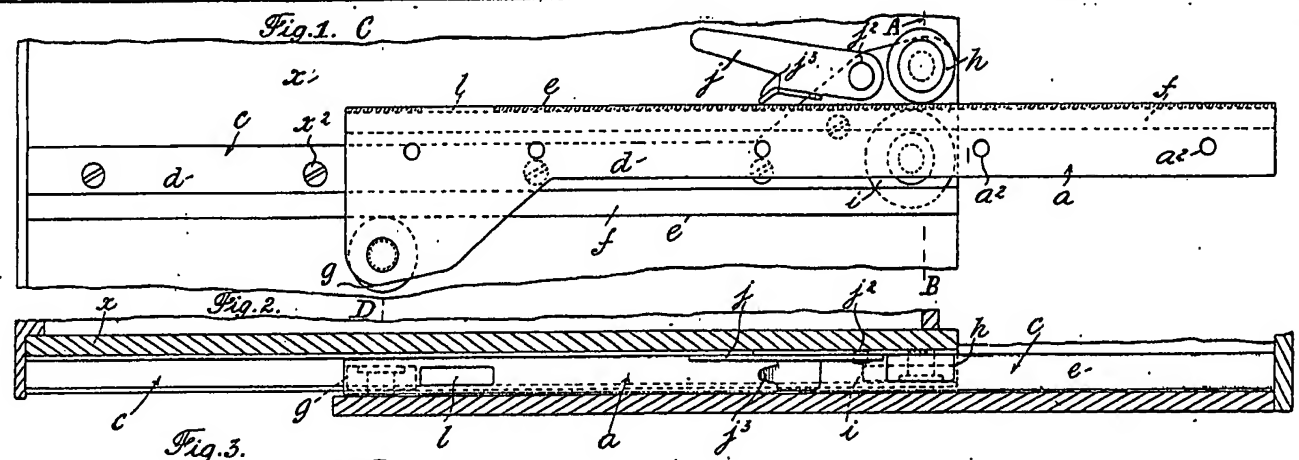
Fig. 7.

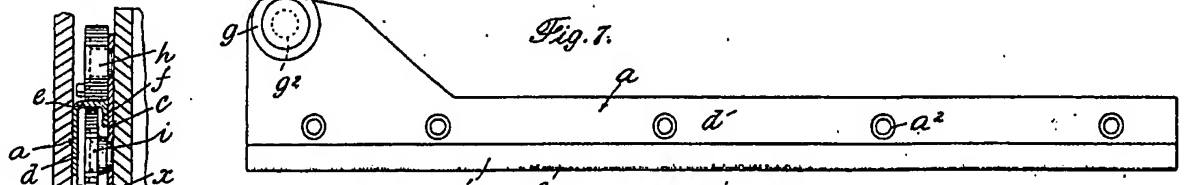


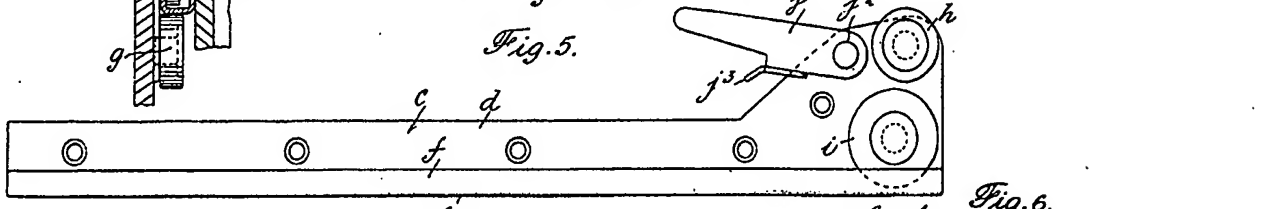
g. 5.

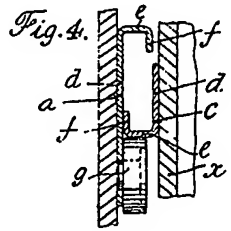
Fig. 6.

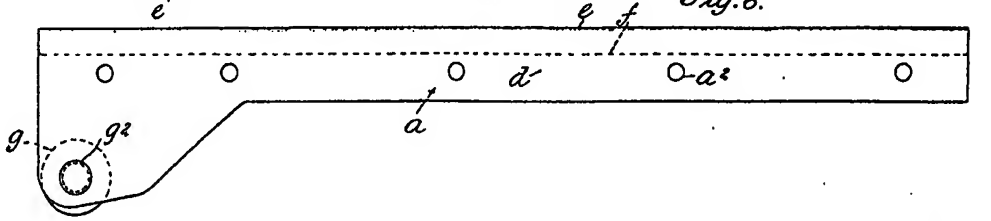
Charles & Read Ltd. Photo Litho











Charles & Read Ltd. Photo Litho